

REMARKS UNDER 37 CFR § 1.111

Formal Matters

Claims 31-62 are pending after entry of the amendments set forth herein.

Claims 1-30 are canceled without prejudice to renewal, without acquiescing to any rejection that may have been applied to the claims, and without intent to abandon any subject matter encompassed in the claims.

The amendments to the specification are made solely to make the figure numbering match the figure numbering in the formal drawings submitted herewith. Applicants respectfully request entry of the amendments.

Support for new claims 31-62 is found throughout the specification, and particularly at, for example, page 11, line 15 to page 12, line 6; page 21, lines 16-19; page 24, lines 1-4 and lines 17-23; page 26, lines 24-25; page 27, lines 12-20; page 29, lines 3-14; page 29, line 24 to page 30, line 3; page 30, lines 19-20; page 34, lines 24-27; page 35, lines 21-27; page 37, line 21; page 37, line 26 to page 38, line 2; page 39, lines 16-17; and in the Examples (page 43, line 14 to page 71, line 7).

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

Applicants respectfully request reconsideration of the application in view of the amendments and remarks made herein.

No new matter has been added.

Conclusion

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number IRVN001DIV.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

CANCER IMMUNOTHERAPY USING AUTOLOGOUS TUMOR CELLS COMBINED WITH [ALLOGENEIC
CYTOKINE-SECRETING CELLS] CELLS EXPRESSING A MEMBRANE CYTOKINE

IN THE SPECIFICATION:

Replace the paragraph beginning at page 1, line 8 with the following rewritten paragraph:

This application is a divisional of U.S. Application Serial No. 08/901,225, filed July 24, 1997, now pending, which application claims the priority benefit of provisional U.S. Application [Applications] Serial Nos. 60/023,108, filed July 25, 1996, [pending] now abandoned; and 60/029,286, filed October 29, 1996, [pending] now abandoned. The afore-listed applications are hereby incorporated herein by reference in their entirety.

Paragraph beginning at page 12, line 19, has been amended as follows:

--Figures 2A-C [is a three-panel graph] are graphs showing the effects of irradiation on the IL-4 secreting tumor cell line UC1 107E IL-4 GS. [Panel A] Figure 2A shows the growth pattern of cells given 5,000 (□) or 10,000 (■) rads. [Panels B and C] Figures 2B & 2C show IL-4 detected by ELISA in the culture medium expressed as total concentration ([Panel B] Figure 2B) or per cell ([Panel C] Figure 2C) Various times after irradiation.—

Please replace the paragraph beginning at page 12, line 24, with the following rewritten paragraph:

Paragraph beginning at page 12, line 24, has been amended as follows:

--**Figures 3A-C** [is] are a series of FACS analysis profiles (incidence versus fluorescence intensity) revealing expression of various surface antigen by UCI 107E IL-4 GS, before or after irradiation with 5,000 or 10,000 rads.—

Paragraph beginning at page 47, line 23, has been amended as follows:

--Results of this experiment are shown in **Figures 2A-C**. Cells irradiated with between 2,500 and 10,000 rads remained viable for about 8 days but all the cells were dead by 3 weeks. Cells irradiated with 1,000 rads recuperated and continued to proliferate. Levels of cytokine production were detectable for 8 days at all doses and closely paralleled the number of viable cells. [Panel B] **Figure 2B** shows IL-4 production after irradiation at 5,000 rads (□) or 10,000 rads (■) in three separate experiments. [Panel C] **Figure 2C** shows IL-4 production standardized in pg/ml/10⁵ cells/48 hr by UCI 107E IL-4 GS cells after irradiation at 5,000 or 10,000 rads in two separate experiments. No statistically significant differences in survival were seen among cells irradiated with 2,500, 5,000, and 10,000 rads on days 2 (p = 0.72), 4 (p = 0.14), 6 (p = 0.10), and 8 (p = 0.3).—

Paragraph beginning at page 48, line 15, has been amended as follows:

--The expression of surface antigens detected by FACS analysis is illustrated in **Figures 3A-C**. Parental cells, vector controls, and 107E IL-4 GS cells constitutively express MHC class I antigens and Her-2/neu, but did not express MHC class II antigens, CA-125, ICAM-1, or IL-4 receptors. Expression of surface antigens was also determined at 2 or 8 days after irradiation. MHC class I antigen and Her-2/new antigen expression increased significantly at all radiation doses, and tended towards higher expression at higher doses. Irradiation did not induce expression of HLA class II antigens, ICAM-I, or CA-125.--